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| APPLICATION NO.         | FILING DATE      | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |  |
|-------------------------|------------------|----------------------|---------------------|------------------|--|
| 09/954,726              | 09/12/2001       | Kenneth R. Korzekwa  | CAMIP003            | 8838             |  |
| 22434 75                | 90 02/24/2004    | EXAMINER             |                     |                  |  |
| BEYER WEA               | VER & THOMAS LLP | LY, CHEYNE D         |                     |                  |  |
| P.O. BOX 778            | CA 04704 0778    | ART UNIT             | PAPER NUMBER        |                  |  |
| BERKELEY, CA 94704-0778 |                  |                      | 1631                |                  |  |

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |  |   | Application No.   |   | Applicant(s)   |                        |  |  |  |
|--|--|---|---|---|--|------------------------|--|--|--|
|  |  |   | 09/954,72   | 6   | KORZEKWA ET AL.  |                        |  |  |  |
| Office Action Summary  |  | Examiner  |   | Art Unit  |  |                        |  |  |  |
|  |  |   | Cheyne D  | _•  | 1631   |                        |  |  |  |
|  | The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply  |   |   |   |  |                        |  |  |  |
| THE I - Exter after - If the - If NO - Failu - Any r earne   | ORTENED STATUTORY PERIOD F MAILING DATE OF THIS COMMUN nsions of time may be available under the provisions SIX (6) MONTHS from the mailing date of this comr period for reply specified above is less than thirty (3 period for reply is specified above, the maximum st re to reply within the set or extended period for reply reply received by the Office later than three months ad patent term adjustment. See 37 CFR 1.704(b). | ICATION. s of 37 CFR 1.136 munication. 80) days, a reply s tatutory period wi y will, by statute, o | 6(a). In no eve<br>within the statu<br>ill apply and will<br>cause the appl | nt, however, may a reply be tim<br>tory minimum of thirty (30) day:<br>I expire SIX (6) MONTHS from<br>ication to become ABANDONE | nely filed s will be considered time the mailing date of this c O (35 U.S.C. § 133). | ely.<br>communication. |  |  |  |
| Status   |  | - d 05 D-   |   | 202   |  |                        |  |  |  |
| 7=   | Responsive to communication(s) filed on <u>05 December 2003</u> .  This action is <b>FINAL</b> .  2b) \( \sum \) This action is non-final.   |   |   |   |  |                        |  |  |  |
| <i>,</i> —   |  | <i>'</i> —  |   |   |  |                        |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.   |  |   |   |   |  |                        |  |  |  |
| Dispositi  | on of Claims   |   |   |   |  |                        |  |  |  |
| ,  | Claim(s) 1-48 is/are pending in the application.   |   |   |   |  |                        |  |  |  |
|  | 4a) Of the above claim(s) <u>7-48</u> is/are withdrawn from consideration.   |   |   |   |  |                        |  |  |  |
| · <u> </u>   | Claim(s) is/are allowed.   |   |   |   |  |                        |  |  |  |
| •  | ☑ Claim(s) <u>1-6</u> is/are rejected.<br>☑ Claim(s) is/are objected to.   |   |   |   |  |                        |  |  |  |
| ,  | Claim(s) <u>1-48</u> are subject to restricti  | ion and/or el   | lection req   | uirement.   |  |                        |  |  |  |
| Applicati  | on Papers  |   |   |   |  |                        |  |  |  |
| 9)[  | The specification is objected to by th   | e Examiner  | •   |   |  |                        |  |  |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.  |  |   |   |   |  |                        |  |  |  |
|  | Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |   |   |  |                        |  |  |  |
| 44)[]  | Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |   |   |  |                        |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |  |   |   |   |  |                        |  |  |  |
| •  | inder 35 U.S.C. §§ 119 and 120   |   |   | da= 25 H C C   \$ 440/a   | ) (d) == (f)   |                        |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> </ul> |  |   |   |   |  |                        |  |  |  |
| 13)∭ A<br>si<br>3'   | See the attached detailed Office action<br>acknowledgment is made of a claim fance a specific reference was included<br>7 CFR 1.78.  | on for a list of<br>for domesticed in the first   | of the certit<br>priority ur<br>sentence                                    | ied copies not receive<br>ider 35 U.S.C. § 119(e<br>of the specification or   | e) (to a provisiona<br>in an Application   |                        |  |  |  |
| <ul> <li>a) The translation of the foreign language provisional application has been received.</li> <li>14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.</li> </ul>  |  |   |   |   |  |                        |  |  |  |
| Attachmen  |  |   |   | _   |  |                        |  |  |  |
| 2) Notic   | e of References Cited (PTO-892)<br>e of Draftsperson's Patent Drawing Review (F<br>nation Disclosure Statement(s) (PTO-1449) F   |   | <u>lot</u> .  | 4) Interview Summary 5) Notice of Informal P 6) Other:  |  |                        |  |  |  |

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#### **DETAILED ACTION**

1. Applicant's election without traversal of Group I, claims 1-6, filed December 05, 2003, is acknowledged.

2. Claims 1-6 are examined on the merits.

#### **SPECIFICATION**

3. The title of the invention is not descriptive due to the instant title being directed to an absolute rate model while the claimed invention is directed to relative reaction velocities. A new title is required that is clearly indicative of the invention to which the claims are directed.

## **CLAIM REJECTIONS - 35 USC § 101**

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- 5. Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory algorithm type subject matter.
- 6. Claims 1-3 are rejected because said claims are directed to a method comprising processes performed within a computer system. The transformation of signals or data inside a computer merely manipulates concepts or converts one set of numbers into another without producing a useful, concrete, and tangible result. (MPEP § 2106 (IV)(B)(2) (b)).
- 7. Claims 4-6 are rejected because said claims are directed to a computer program comprising molecular structure data which are considered descriptive material wherein said material is either functional, a system and computer readable media; or non-functional. The molecular structure data of the instant invention are regarded as descriptive non-functional descriptive material; therefore, causes the claimed invention to be non-statutory subject matter.

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The MPEP indicates that descriptive material that cannot exhibit any functional interrelationship with the way in which computing processes are performed does not constitute a statutory process, machine, manufacture or composition (MPEP § 2106 (IV)(B)(1) (b)). Specific to the instant case, the computer program product merely stores molecular structure data so as to be read without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer, then such descriptive material alone does not impart functionality either to the data as so structured, or to the computer. (MPEP § 2106 (IV)(B)(2) (a)).

## CLAIM REJECTIONS - 35 U.S.C. § 112, SECOND PARAGRAPH

- 8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 9. Claims 2 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 10. Specific to claims 2 and 5, lines 1-2, the phrase "the structural feature at least partially excludes at least one of water and hydrophilic components" causes the claim to be vague and indefinite because it is unclear whether the selection criteria is water and other hydrophilic, a plurality of hydrophilic components, or a mixture. Clarification of the metes and bounds is required.

### CLAIM REJECTIONS - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Byczkowski et al. (1996).
- 3. Byczkowski et al. discloses a method and computer program for modeling simulated formation of lipid hydroperoxides and thiobarbituric acid reactive substances over time (velocities) as a function of the amounts of cytochrome P450 (Abstract etc.) as directed to both normal metabolic pathways and by oxidative stress caused by metabolic activation of xenobiotices (page 73, Introduction, lines 1-6, and Figures 2-6). The model of Byczkowski et al. is directed to the production of peroxides which is increase by stimulators and decreased by inhibitors (relative reaction rate) (page 75, column 1, § 3.1, line 6 to column 2, line 7, Figures 2-6, and Table 3), as in instant claims 1 and 4.

#### CONCLUSION

- 4. NO CLAIM IS ALLOWED.
- 5. Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 193), and 1157 OG 94 (December 28, 1993) (see 37 CFR § 1.6(d)). The CM1 Fax Center number is (703) 872-9306.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

- 7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (571) 272-0722.
- 8. Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instruments Examiner, Tina Plunkett, whose telephone number is (571) 272-0549 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

C. Dune Ly 2/17/04

ARDIN H. MARSCHEL PRIMARY EXAMINER